

Title (en)  
METHOD OF GENERATING SUPERCONTINUUM OPTICAL RADIATION, SUPERCONTINUUM OPTICAL RADIATION SOURCE, AND USE THEREOF

Title (de)  
VERFAHREN ZUM ERZEUGEN VON SUPERKONTINUUM-LICHTSTRAHLUNG, SUPERKONTINUUM-LICHTSTRAHLUNGSQUELLE UND VERWENDUNG DAFÜR

Title (fr)  
PROCEDE DE GENERATION D'UN RAYONNEMENT OPTIQUE SUPERCONTINUU, SOURCE DE RAYONNEMENT OPTIQUE SUPERCONTINUU ET SON UTILISATION

Publication  
**EP 1706788 B1 20091007 (EN)**

Application  
**EP 05707834 A 20050124**

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Abstract (en)  
[origin: US8000574B2] A method of generating supercontinuum optical radiation, the method comprising: (a) providing an optical waveguide (22), said optical waveguide exhibiting a dispersion characteristic of guided optical radiation, said dispersion characteristic comprising: (i) a first dispersion parameter ( $\beta_{21}$ ) at a first wavelength ( $\lambda_1$ ), (ii) a second dispersion parameter ( $\beta_{22}$ ) at a second shorter wavelengths ( $\lambda_2$ ), and (iii) a zero-dispersion parameter at a wavelength in between said first and said second shorter wavelengths; said optical waveguide further comprising at least one entrance for receiving optical radiation, and at least one exit for emitting guided optical radiation; (b) applying at least two laser radiation of said first (25) wavelength, ( $\lambda_1$ ) at a first power (P1) and applying laser radiation of said second (26) shorter wavelength ( $\lambda_2$ ) at a second power (P2) into said optical waveguide, said laser radiations at least partially overlapping between said at least one entrance and said at least one exit of said optical waveguide; and (c) phase-matching said applied laser radiations by adjusting said first and second powers; a supercontinuum optical radiation source; and use thereof.

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